

Montana DEQ Forest Fire Smoke Advisory

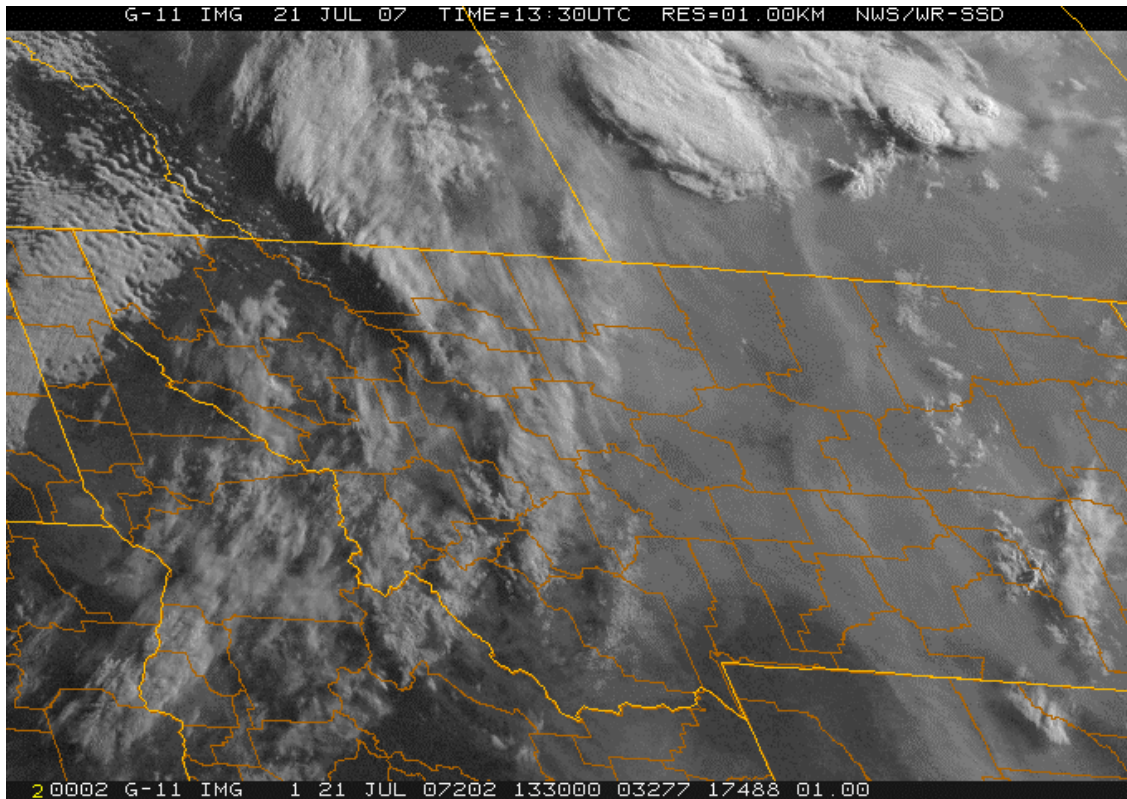
July 21 2007

10:00 AM Saturday

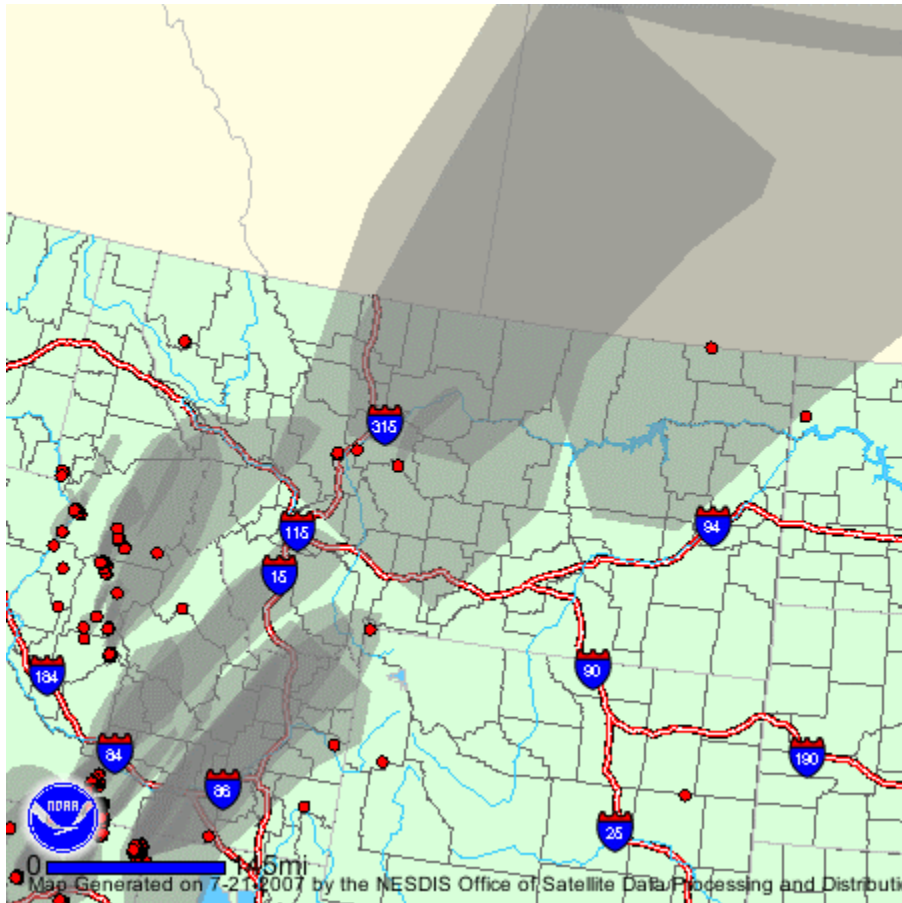
Current Situation

Smoke from fires in Idaho continues to impact Montana under a southwest flow aloft. MODERATE levels are present at the surface at several reporting stations including Missoula, Hamilton, Helena and Butte. Hamilton was at UNHEALTHY FOR SENSITIVE for several last evening. UNHEALTHY levels are worse are expected in the vicinity of the active fires this morning. More smoke will mix down to the surface later this morning and increased fire activity this afternoon will drive smoke into communities downwind of the local fires as well. See the forecast below for details. Residents near active fires or experiencing noticeable smoke levels should use the VISIBILITY GUIDELINES to determine smoke levels in their area and guide their activity decisions.

Morning satellite photo centered on Great Falls:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind(the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last nights satellite coverage)



Red indicates hot spot detected. Grey represents smoke seen by satellite. Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lg_fire2.php

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

<http://www.deq.state.mt.us/FireUpdates/SmokeCategories.asp>

Updated 10 AM July 21, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

<u>HAZARDOUS</u>	
VERY UNHEALTHY	
UNHEALTHY	
UNHEALTHY FOR SENSITIVE GROUPS	
MODERATE	Missoula T24 Hamilton T8 Helena T24 Butte T8

T1(x) One-hour TEOM or BAM value (number of values)
T8(x) Eight-hour average TEOM or BAM value(number of values)
T24 24 hour average TEOM or BAM value
Vis(x) Visibility value(number of hours)
Vis(am/pm) Visibility value from twice/day reporting stations
(est) estimate

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local visibility guidelines

<http://www.deq.state.mt.us/FireUpdates/VisibilityRanges.asp>

to evaluate possible health risks and make informed activity decisions.

Forecast

Transport winds are switching around to the southwest today and strong surface winds from west are forecast in most areas. This will continue to push smoke into the Bitterroot Valley and southwestern Montana. Smoke from the fires in Idaho will be pouring into that area this evening as the fires heat up and the plumes head this way. There will be a lot of hazy sky for the rest of the state as well as residual smoke aloft blankets most of the area. Some of that smoke will mix down to the surface later this morning for some temporarily noticeable surface impacts under the thickest parts of the plume aloft. Local impacts from the active fires in the state will also be of concern today. Strong westerly winds at the surface are forecast over most of the fires in the state and that will likely push smoke into an area from Wolf Creek north to Shelby including all of the Front Range area and Great Falls. Gershwin fans attending the Symphony Under the Stars in Helena tonight should see a dramatic sunset with a few scattered thunderstorms as the music begins. Dispersion this afternoon will be excellent with high mixing heights and moderate to strong winds. This should prevent any buildup of smoke but local impacts are still likely. Smoke from the Pattengail Creek fire northeast of Wisdom could impact the Anaconda-Butte-Helena area later this afternoon and evening if the fire there takes off this afternoon. Areas downwind of active fires could see significant impacts if fire levels increase dramatically. With the excellent mixing the plumes will mix down to the surface miles downwind of the fires. Residents near active fires need to remain aware of current conditions and use the visibility guidelines:

<http://www.deq.state.mt.us/FireUpdates/VisibilityRanges.asp>

to guide their activity decisions as the situation changes.

John Coefield
Meteorologist
Montana Department of Environmental Quality

Jcoefield@mt.gov